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ID    Q81328. standard; cDNA; 7555 BP.
XX
AC    Q81328;
XX
DT    05-AUG-1995   (first entry)
XX
DE    Cardiac sodium channel protein coding sequence.
XX
KW    Sodium channel protein; ds; therapeutic; diagnostic; prognostic;
KW    antiarrythmic; cardiant; cardioglycoside; pRH3-1; pRH4-23; pRH14-31.
XX
OS    Rattus rattus.
XX
FH    Key             Location/Qualifiers
FT    CDS             196..6253
FT                    /*tag=  a
XX
PN    US5380836-A.
XX
PD    10-JAN-1995.
XX
PF    13-FEB-1989; 89US-0331330.
XX
PR    13-FEB-1989; 89US-0331330.
PR    30-SEP-1991; 91US-0768107.
XX
PA    (ARCH-) ARCH DEV CORP.
XX
PI    Rogart RB;
XX
DR    WPI; 95-060381/08.
DR    P-PSDB; R67913.
XX
PT    Purified DNA's encoding rat and human cardiac sodium channel
PT    protein  - useful for recombinant expression to produce sodium
PT    channel proteins.
XX
PS    Claim 8; Fig 1a-1n; 39pp; English.
XX
CC    The cDNA is derived from 3 overlapping cDNA clones, designated
CC    plasmid pRH3-1 (ATCC 67885), plasmid pRH4-23 (ATCC 67886) and
CC    plasmid pRH14-31 (ATCC 67887).  A virus/circular DNA plasmid vector
CC    comprising the cDNA may be transformed or transfected into a
CC    prokaryote/eukaryote host cell, and the resulting recombinant sodium
CC    channel protein has various therapeutic, diagnostic and prognostic
CC    uses.  It may also be used to develop more effective antiarrythmic,
CC    cardiant and cardioglycoside drugs.
XX
SQ    Sequence 7555 BP; 1577 A; 2309 C; 2103 G; 1566 T; 0 other;
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ID    V58419 standard; cDNA; 6556 BP.
XX
AC    V58419;
XX
DT    01-DEC-1998   (first entry)
XX
DE    PN4 sodium channel clone.
XX
KW    Tetrodotoxin-sensitive sodium channel; rat; PN4 sodium channel; stroke;
KW    nervous system disorder; epilepsy; brain injury; diabetic neuropathy;
KW    AIDS-associated neuropathy; therapy; ss.
XX
OS    Rattus sp.
XX
PN    WO9838302-A2.
XX
PD    03-SEP-1998.
XX
PF    20-FEB-1998; 98WO-EP00997.
XX
PR    26-FEB-1997; 97US-0039447.
XX
PA    (HOFF ) HOFFMANN LA ROCHE & CO AG F.
XX
PI    Delgado SG,  Dietrich PS,  Fish LM,  Herman RC,  Sangameswaran L;
XX
DR    WPI; 98-481204/41.
XX
PT    New rat tetrodotoxin-sensitive sodium channel alpha subunit and DNA
PT    - for detecting inhibitors which alleviate pain, and treating
PT    nervous system disorders, e.g. epilepsy, stroke, diabetic and AIDS
PT    neuropathy
XX
PS    Claim 1; Page 54-58; 87pp; English.
XX
CC    This sequence represents the isolated rat PN4 sodium channel cDNA clone
CC    of the invention. This sequence was isolated from a peripheral nerve from
CC    a rat dorsal ganglia. The PN4 sodium channel sequences are
CC    tetrodotoxin-sensitive sodium channels. The protein is used in assays for
CC    detecting inhibitors of tetrodotoxin-sensitive sodium channels, which
CC    alleviate pain.  The probes can be used to detect and isolate the DNA or
CC    protein in tissues.  The antibodies can also be used to isolate the
CC    protein. The protein is used as a therapeutic target for compounds to
CC    treat disorders of the nervous system, such as epilepsy, stroke and brain
CC    injury, diabetic neuropathy, and AIDS-associated neuropathy, etc.
XX
SQ    Sequence 6556 BP; 1620 A; 1727 C; 1736 G; 1471 T; 2 other;
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ID    Q05831'standard; cDNA; 7555 BP.
XX
AC    Q05831;
XX
DT    10-JAN-1991   (first entry)
XX
DE    Cardiac sodium channel gene.
XX
KW    Rat; arrhythmia; ss.
XX
OS    Rattus rattus.
XX
PN    WO9009391-A.
XX
PD    23-AUG-1990.
XX
PF    09-FEB-1990; 90WO-US00768.
XX
PR    13-FEB-1989; 89US-0310330.
XX
PA    (ARCH-) ARCH DEV CORP.
XX
PI    Rogart RB;
XX
DR    WPI; 90-275095/36.
DR    P-PSDB; R06584.
XX
PT    New rat cardiac sodium channel proteins - and associated DNA
PT    sequences, polypeptides and peptides associated with
PT    proteins, useful as antiarrythmic and cardiotonic drugs.
XX
PS    Claim 7; Fig 1; 65pp; English.
XX
CC    The sequence is derived from 3 overlapping clones, pRH3-1,pRH4-23,
CC    and pRH14-31.  (Deposited as ATCC 67885, 67886, and 67887 resp.)
CC    The clones were isolated from a cDNA library in the lambda Zap
CC    vector  prepd. from mRNA obtd. from newborn rat hearts using rat
CC    brain II cDNA probe.  The isolated DNA can be used to screen a
CC    similar  human derived cardiac cDNA library for the corresponding
CC    human gene.  Proteins produced by expression of the DNA have
CC    diagnostic therapeutic, and prognostic applications.
XX
SQ    Sequence 7555 BP; 1576 A; 2314 C; 2101 G; 1564 T; 0 other;
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      gcgcgggccg ggcaccatca gcttccttcc aggcaacctg aggagagcct gtgcccccag       180
      aagcaggatg agaagatggc aaacctcctg ttacctcggg gcaccagcag cttccgtagg       240
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ID    V09029'standard; DNA; 6048 BP.
XX
AC    V09029;
XX
DT    06-JUL-1998   (first entry)
XX
DE    Human hH1 sodium channel gene.
XX
KW    Ion channel; sodium channel; hH1; human; cardiac cell; heart;
KW    pacemaker; gene therapy; ds.
XX
OS    Homo sapiens.
XX
PN    WO9802040-A1.
XX
PD    22-JAN-1998.
XX
PF    04-APR-1997; 97WO-US05556.
XX
PR    17-JUL-1996; 96US-0682433.
XX
PA    (MEDT ) MEDTRONIC INC.
XX
PI    Morissette J,  Stokes KB;
XX
DR    WPI; 98-110247/10.
DR    P-PSDB; W23994.
XX
PT    System for delivering genetic material to heart - comprises
PT    reservoir, catheter and optionally pacing electrode for delivering
PT    ion-channel protein, useful for, e.g. improving sensing by pacemaker
XX
PS    Disclosure; Page 33-41; 73pp; English.
XX
CC    This DNA sequence codes for the human hH1 voltage-regulated sodium
CC    channel protein (see W23994).  hH1 nucleic acids can be obtained
CC    e.g. from an adult human cardiac cDNA library using probes
CC    corresponding to the rat muscle TTX-I isoform, or by PCR
CC    amplification of cDNA prepared from fresh cardiac tissue (see
CC    V09030-31.).  A claimed system for delivering genetic material (GM)
CC    comprises a reservoir containing GM and a device for delivering it
CC    to myocardial cells (MC) at a specific location.  The GM increases
CC    the amplitude of the cardiac signal, improving the signal-to-noise
CC    (S/N) ratio that is sensed by the electrode of a pacemaker.  Also
CC    claimed are: (1) an implantable delivery system comprising a
CC    reservoir for GM which increases the expression of ion channels in
CC    MC and system for delivering this through a catheter, the tip of
CC    which engages MC at the chosen location, and (2) a system similar
CC    to (1) comprising a pacing electrode on an inner wall of the heart,
CC    close to the site where the GM is delivered.  The system is used
CC    for delivery of an ion-channel GM which causes depolarisation of
CC    atrial and ventricular MC and improves the sensing of cardiac
CC    signals by the pacemaker and the S/N ratio of atrial P-waves.  The
CC    preferred GM comprises DNA or RNA encoding hH1.
XX
SQ    Sequence 6048 BP; 1307 A; 1855 C; 1609 G; 1277 T; 0 other;
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      cggagagcgg ctgtgaagat ctggttcac tcgctcttca acatgctcat catgtgcacc       420
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ID   T77803 standard; cDNA; 6524 BP.
XX
AC   T77803;
XX
DT   09-OCT-1997   (first entry)
XX
DE   cDNA encoding wild type rat DRG (SNS-B).
XX
KW   Rat; sensory neuron sodium channel protein; insensitive; tetrodotoxin;
KW   modulator; impulse; sensory neuron; acute pain; chronic pain;
KW   neuropathic pain; glia; muscle; parasympathetic nervous system;
KW   enteric nervous system; central nervous system; dorsal root ganglia;
KW   cranial ganglia; ss.
XX
OS   Rattus rattus.
XX
FH   Key                Location/Qualifiers
FT   CDS                204..6077
FT                      /*tag=  a
FT                      /product= Rat_DRG(SNS-B)
XX
PN   WO9701577-A1.
XX
PD   16-JAN-1997.
XX
PF   25-JUN-1996; 96WO-GB01523.
XX
PR   28-JUN-1995; 95GB-0013180.
XX
PA   (UNLO ) UNIV COLLEGE LONDON.
XX
PI   Akopian AN,  Wood JN;
XX
DR   WPI; 97-100165/09.
DR   P-PSDB; W21737.
XX
PT   New isolated mammalian sensory neuron sodium channel protein - used
PT   to identify modulators of the sodium channel, partic. for the
PT   treatment of pain
XX
PS   Claim 9; Page 50-58; 128pp; English.
XX
CC   The sequences given in T77803-06 encode the wild type and three
CC   variant forms of a rat sensory neuron sodium channel protein which
CC   is insensitive to tetrodotoxin.  The proteins can be used for
CC   identifying modulators of the sodium channel.  Blockers of the
CC   sodium channel will block or prevent the transmission of impulses
CC   along sensory neurons and thereby be useful in the treatment of acute,
CC   chronic or neuropathic pain.  The novel protein is found only in sensory
CC   neurons and not in glia, muscle or the neurons of the (para)sympathetic,
CC   enteric or central nervous system.  The protein is found preferably in
CC   the neurons of the dorsal root ganglia or cranial ganglia.
XX
SQ   Sequence 6524 BP; 1540 A; 1866 C; 1662 G; 1456 T; 0 other;
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ID    T30192 standard; cDNA; 3033 BP.
XX
AC    T30192;
XX
DT    25-OCT-1996   (first entry)
XX
DE    Peripheral nervous system sodium channel peptide-1 alpha-subunit gene.
XX
KW    Rat; peripheral nervous system; sodium channel; PN1; PC12; PKI-4;
KW    sodium-agonist; sodium-antagonist; drug screening; analgesic;
KW    hypotensive; antiinflammatory; trauma; pain; neurological disorder;
KW    antisense; gene therapy; ss.
XX
OS    Rattus rattus.
XX
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FT                    /note= "Binds primer T30196"
FT    primer bind     1495..1518
FT                    /*tag=  d
FT                    /note= "Binds primer T30197"
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PN    WO9614077-A1.
XX
PD    17-MAY-1996.
XX
PF    02-NOV-1995; 95WO-US14251.
XX
PR    07-JUN-1995; 95US-0482401.
PR    02-NOV-1994; 94US-0334029.
XX
PA    (TROP-) TROPHIX PHARM INC.
PA    (UYNY ) UNIV NEW YORK STATE RES FOUND.
XX
PI    Borden LA,  Halegoua S,  Mandel G;
XX
DR    WPI; 96-251547/25.
DR    P-PSDB; R99638.
XX
PT    Nucleic acid encoding peripheral nervous system specific sodium
PT    channel peptide  - useful for sodium channel-associated disease or
PT    trauma.
XX
PS    Claim 2; Fig 7; 80pp; English.
XX
CC    The sequence encodes repeat domain-II of a rat peripheral nervous
CC    system sodium channel peptide-1 alpha-subunit (PN1), with sodium
CC    channel activity, and has been isolated from a rat PC12 subclone
CC    PKI-4 cell culture, expressing high levels of cAMP-dependent
CC    protein-kinase-inhibitor.  A cDNA library has been screened with
CC    primers T30196-97, and the product has been used as a probe to
CC    re-screen the library to isolate this sequence.  The full-length
CC    gene is given in T30193.  A probe derived from the sequence may be
CC    used in differential tissue expression studies.  The peptide may be
CC    used to isolate sodium-agonists and sodium-antagonists for use as
CC    analgesics, hypotensives, antiinflammatories, and in therapy of
CC    sodium channel-associated pathology or trauma, e.g. neurological
CC    disorders.  The DNA (in sense or antisense orientation) may be used
CC    in gene therapy.
XX
SQ    Sequence 3033 BP; 860 A; 689 C; 687 G; 797 T; 0 other;
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ID    W57773'standard; Protein; 2104 AA.
XX
AC    W57773;
XX
DT    27-OCT-1998   (first entry)
XX
DE    Musca domestica voltage-sensitive sodium channel.
XX
KW    voltage-sensitive sodium channel; insecticide; sensitivity;
KW    resistance.
XX
OS    Musca domestica.
XX
PN    WO9828446-A1.
XX
PD    02-JUL-1998.
XX
PF    18-DEC-1997; 97WO-US24256.
XX
PR    24-DEC-1996; 96US-0772512.
XX
PA    (CORR ) CORNELL RES FOUND INC.
XX
PI    Ingles PJ,  Knipple DC,  Soderlund DM;
XX
DR    WPI; 98-377674/32.
DR    N-PSDB; V40630.
XX
PT    New isolated voltage-sensitive sodium channel polypeptides -
PT    obtained from house flies, which are capable of conferring
PT    sensitivity or resistance to an insecticide in insects
XX
PS    Claim 63; Page 55-62; 96pp; English.
XX
CC    The sequence is that of a voltage-sensitive sodium channel
CC    (VSSC) of Musca domestica (kdr strain). Such a VSSC is capable of
CC    conferring sensitivity or resistance to an insecticide. Antibodies
CC    raised the VSSC can be used to detect VSSCs and these can be used in
CC    drug screening. Antisense nucleic acids and vectors containing
CC    the sequence may be used to reduce VSSc expression in an insect.
CC    The VSSCs can be used for conferring sensitivity or resistance to
CC    insecticides such as DDT and analogues and pyrethroids in insects
CC    such as house flies, fruit or vinegar flies, tobacco budworm,
CC    Colorado potato beetle, German cockroach or yellow fever mosquito.
XX
SQ    Sequence    2104 AA;
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